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Summary of Motor Vehicle Accidents in the Petroleum Industry for 1982

JUNE 1983

American Petroleum Institute
2101 L Street, Northwest
Washington, D.C. 20037

Summary of Motor Vehicle Accidents in the Petroleum Industry for 1982

Statistics Department

JUNE 1983

American
Petroleum
Institute

SUMMARY

MOTOR VEHICLE ACCIDENTS IN THE PETROLEUM INDUSTRY IN 1982

The American Petroleum Institute's fiftieth survey of motor vehicle accidents in the petroleum industry represents the collective experience of 115 companies. Although this number does not reflect the counting of subsidiaries individually, since they were not reported separately, the reported data does include the experience of subsidiaries in most cases.

Table I shows that 103 companies operated 69,793 vehicles which traveled 1,543,129,000 miles and were involved in 6,868 accidents, indicating an average of 224,683 miles per vehicle accident in 1982. Comparable figures for 1981 were: 62,822 vehicles, 1,323,781,000 miles traveled, 6,416 vehicle accidents, and an average of one accident per 206,325 miles. Thus, in 1982 there was a frequency rate of 4.45 accidents per one million vehicle miles compared with 4.85 in 1981, a decrease of 8.2 per cent.

Table II shows that 115 companies had a frequency rate of accidents per 100 vehicles operated in 1982 of 9.7, compared with 10.1 in 1981, a decrease of 2.3 per cent.

Note: Total figures for "All Departments" are greater than the sum of the corresponding figures for the individual departments because some reports did not separate figures for each department. Similarly, the combined figures for cars and trucks are greater than the sum of the corresponding figures for these two classes of vehicles because some company reports did not give separate figures for each class.

1980–1982 statistics are not comparable to previous years due to the reclassification of functions.

Additional copies of this survey may be obtained upon request by writing to:

American Petroleum Institute
Publications & Distribution Section
2101 L Street, N.W.
Washington, D.C. 20037

TABLE I — PETROLEUM INDUSTRY — MOTOR VEHICLE ACCIDENTS PER 1,000,000 MILES

COMPARISON BY DEPARTMENTS 1980–1982* (INCLUSIVE) OF THOSE COMPANIES REPORTING THE NUMBER OF VEHICLE MILES TRAVELED

	PASSENGER CARS REPORTED SEPARATELY					TRUCKS REPORTED SEPARATELY				COMBINATION ALL CARS AND TRUCKS REPORTED			
Year	No. of Cos.	No. of Cars	No. of Vehicle Miles Traveled (Thousands)	No. of Acci-dents	No. of Accidents Per One Million Vehicle Miles	No. of Trucks	No. of Vehicle Miles Traveled (Thousands)	No. of Acci-dents	No. of Accidents Per One Million Vehicle Miles	No. of Cars and Trucks	No. of Vehicle Miles Traveled (Thousands)	No. of Acci-dents	No. of Accidents Per One Million Vehicle Miles
						ALL DEPARTMENTS							
1982	103	29,251	564,709	2,529	4.48	23,957	646,189	3,030	4.69	69,793	1,543,129	6,868	4.45
1981	81	11,395	205,221	934	4.55	21,158	465,571	2,445	5.25	62,822	1,323,781	6,416	4.85
1980	62	15,792	296,343	1,184	4.00	21,970	455,324	2,391	5.25	60,842	1,246,226	5,752	4.62
						EXPLORATION & PRODUCTION							
1982	38	10,501	199,590	824	4.13	5,067	100,744	436	4.33	21,269	385,186	1,494	3.88
1981	27	2,959	45,522	237	5.21	4,642	70,753	414	5.85	15,883	252,169	1,105	4.38
1980	19	3,191	58,500	271	4.63	4,554	69,215	422	6.10	9,475	152,782	773	5.06
						GAS PROCESSING							
1982	23	598	12,318	44	3.57	263	7,890	16	2.03	936	22,533	63	2.80
1981	10	62	1,321	2	1.51	158	2,248	5	2.22	538	10,775	26	2.41
1980	9	178	3,549	10	2.82	396	4,616	11	2.38	841	13,077	35	2.68
						DRILLING							
1982	10	141	3,520	12	3.41	227	5,365	49	9.13	389	9,321	62	6.65
1981	5	36	703	1	1.42	57	1,813	5	2.76	128	3,144	6	1.91
1980	4	80	1,326	2	1.51	206	2,513	8	3.18	304	4,281	13	3.04
						CHEMICALS							
1982	8	1,162	18,509	120	6.48	658	19,239	168	8.73	1,905	45,642	331	7.25
1981	5	628	12,456	99	7.95	638	16,208	135	8.33	1,906	42,082	272	6.46
1980	4	596	11,519	107	9.29	586	15,496	153	9.87	1,794	41,823	299	7.15
						REFINING							
1982	16	920	10,257	48	4.68	1,165	8,547	64	7.49	2,183	20,228	114	5.64
1981	12	339	5,506	19	3.45	940	10,969	75	6.84	2,028	25,830	139	5.38
1980	7	296	3,937	14	3.56	776	3,965	45	11.35	1,406	11,764	79	6.72
						MARKETING—WHOLESALE							
1982	19	5,226	119,994	416	3.47	3,901	225,844	1,012	4.48	12,411	451,873	1,936	4.28
1981	18	2,553	49,513	212	4.28	4,254	141,815	883	6.23	2,925	398,710	2,197	5.51
1980	12	1,100	23,546	65	2.76	3,507	97,679	662	6.78	6,502	188,924	1,162	6.15
						MARKETING—RETAIL							
1982	12	721	22,060	116	5.26	3,776	62,906	497	7.90	4,921	93,053	646	6.94
1981	10	893	18,169	55	3.03	2,568	46,744	331	7.08	3,699	68,369	401	5.87
1980	9	564	12,359	40	3.24	2,385	40,204	195	4.85	2,949	52,563	235	4.47
						PIPELINE—CRUDE & PRODUCTS							
1982	26	2,280	52,586	183	3.48	4,371	122,827	426	3.47	7,236	190,450	665	3.49
1981	24	1,395	28,122	87	3.09	3,354	78,155	237	3.03	5,910	133,918	412	3.08
1980	21	1,259	25,536	82	3.21	3,462	73,443	238	3.24	5,202	108,130	347	3.21
						PIPELINE—GAS							
1982	19	2,635	46,259	247	5.34	3,617	71,235	250	3.51	8,088	151,064	678	4.49
1981	17	1,158	20,725	94	4.54	3,472	74,968	241	3.21	9,106	182,795	706	3.86
1980	12	1,025	19,745	102	5.17	2,252	50,995	193	3.78	5,898	125,398	484	3.86
						MARINE							
1982	3	23	493	1	2.03	4	50	1	20.00	27	543	2	3.68
1981	3	24	457	1	2.19	4	54	1	18.52	30	528	2	3.79
1980	3	22	423	3	7.09	4	52	0	0	28	508	4	7.87
						RESEARCH & DEVELOPMENT							
1982	12	337	3,566	29	8.13	156	1,177	5	4.25	874	6,004	38	6.33
1981	11	152	1,914	8	4.18	107	886	10	11.29	697	6,227	43	6.91
1980	8	142	1,683	12	7.13	104	614	7	11.40	364	3,064	31	10.12
						ENGINEERING & SERVICES							
1982	9	477	7,250	43	5.93	256	2,949	28	9.49	733	10,199	71	6.96
1981	9	319	6,116	36	5.89	214	4,058	31	7.64	533	10,173	67	6.59
1980	7	219	4,102	26	6.34	225	5,850	37	6.32	444	9,952	63	6.33
						MISCELLANEOUS							
1982	21	931	21,174	69	3.26	430	11,483	43	3.74	1,497	35,698	120	3.36
1981	17	768	12,875	77	5.98	498	13,912	59	4.24	1,779	35,464	206	5.81
1980	14	404	7,195	44	6.12	201	4,156	6	1.44	859	18,291	72	3.94

*Not comparable to previous years.

TABLE II—PETROLEUM INDUSTRY—MOTOR VEHICLE ACCIDENTS PER 100 VEHICLES

COMPARISON BY DEPARTMENTS 1980–1982* (INCLUSIVE) OF THOSE COMPANIES REPORTING THE ITEMS SHOWN

		PASSENGER CARS REPORTED SEPARATELY			TRUCKS REPORTED SEPARATELY			COMBINATION ALL CARS AND TRUCKS REPORTED		
Year	No. of Cos.	No. of Cars	No. of Accidents	No. of Accidents Per 100 Vehicles	No. of Trucks	No. of Accidents	No. of Accidents Per 100 Vehicles	No. of Cars and Trucks	No. of Accidents	No. of Accidents Per 100 Vehicles
					ALL DEPARTMENTS					
1982	115	31,701	2,802	8.8	27,411	3,268	11.9	75,697	7,379	9.7
1981	94	14,218	1,217	8.6	23,621	2,630	11.1	68,108	6,884	10.1
1980	75	17,067	1,281	7.5	23,999	2,515	10.5	64,146	5,973	9.3
					EXPLORATION & PRODUCTION					
1982	46	11,558	968	8.4	5,955	529	8.9	23,214	1,731	7.5
1981	35	4,150	378	9.1	5,444	467	8.6	17,876	1,299	7.3
1980	26	3,439	299	8.7	5,585	492	8.8	10,754	871	8.1
					GAS PROCESSING					
1982	28	705	60	8.5	509	22	4.3	1,289	85	6.6
1981	16	146	18	12.3	427	17	4.0	891	54	6.1
1980	12	298	18	6.0	562	17	3.0	1,127	49	4.3
					DRILLING					
1982	13	388	20	5.2	445	54	12.1	854	75	8.8
1981	6	200	8	4.0	252	20	7.9	487	28	5.7
1980	7	144	7	4.9	240	11	4.6	402	21	5.2
					CHEMICALS					
1982	11	1,311	132	10.1	1,015	170	16.7	2,411	345	14.3
1981	8	1,150	120	10.4	756	146	19.3	2,546	304	11.9
1980	6	628	118	18.8	626	163	26.0	1,866	320	17.1
					REFINING					
1982	23	1,106	72	6.5	1,575	84	5.3	2,681	158	5.9
1981	19	526	37	7.0	1,255	97	7.7	2,530	179	7.1
1980	13	380	21	5.5	1,038	56	5.4	1,752	97	5.5
					MARKETING—WHOLESALE					
1982	27	5,399	433	8.0	4,303	1,065	24.8	12,986	2,007	15.5
1981	27	2,770	234	8.4	4,681	923	19.7	13,569	2,259	16.6
1980	20	1,318	74	5.6	3,670	674	18.4	6,883	1,183	17.2
					MARKETING—RETAIL					
1982	16	875	127	14.5	3,807	499	13.1	5,106	659	12.9
1981	15	1,037	68	6.6	4,596	335	12.9	3,871	418	10.8
1980	12	712	51	7.2	2,446	197	8.1	3,158	248	7.9
					PIPELINE—CRUDE & PRODUCTS					
1982	32	2,391	194	8.1	4,793	463	9.7	7,769	713	9.2
1981	28	1,525	99	6.5	3,514	251	7.1	6,200	438	7.1
1980	26	1,354	88	6.5	3,644	245	6.7	5,479	360	6.6
					PIPELINE—GAS					
1982	20	2,635	247	9.4	3,669	253	6.9	8,140	500	6.1
1981	18	1,164	94	8.1	3,477	241	6.9	9,117	706	7.7
1980	14	1,026	102	9.9	2,266	193	8.5	5,913	484	8.2
					MARINE					
1982	3	23	1	4.3	4	1	25.0	27	2	7.4
1981	3	24	1	4.2	4	1	25.0	30	2	6.7
1980	3	22	3	13.6	4	0	0	28	4	14.3
					RESEARCH & DEVELOPMENT					
1982	13	338	29	8.6	158	5	3.2	877	38	4.3
1981	12	152	8	5.3	109	10	9.2	699	43	6.2
1980	9	143	12	8.4	106	7	6.6	367	31	8.4
					ENGINEERING & SERVICES					
1982	13	510	51	10.0	267	29	10.9	777	80	10.3
1981	12	322	37	11.5	223	31	13.9	545	68	12.5
1980	9	221	26	11.8	226	37	16.4	447	63	14.1
					MISCELLANEOUS					
1982	28	1,163	90	7.7	845	59	7.0	2,144	157	7.3
1981	25	943	109	11.6	631	73	11.6	2,087	252	12.1
1980	33	666	56	8.4	274	9	3.3	993	87	8.8

*Not comparable to previous years.

TABLE I — PETROLEUM INDUSTRY — MOTOR VEHICLE ACCIDENTS PER 1,000,000 MILES

COMPARISON BY DEPARTMENTS 1973–1979* (INCLUSIVE) OF THOSE COMPANIES REPORTING THE NUMBER OF VEHICLE MILES TRAVELED

	PASSENGER CARS REPORTED SEPARATELY					TRUCKS REPORTED SEPARATELY				COMBINATION ALL CARS AND TRUCKS REPORTED			
Year	No. of Cos.	No. of Cars	No. of Vehicle Miles Traveled (Thousands)	No. of Acci-dents	No. of Accidents Per One Million Vehicle Miles	No. of Trucks	No. of Vehicle Miles Traveled (Thousands)	No. of Acci-dents	No. of Accidents Per One Million Vehicle Miles	No. of Cars and Trucks	No. of Vehicle Miles Traveled (Thousands)	No. of Acci-dents	No. of Accidents Per One Million Vehicle Miles
						ALL DEPARTMENTS							
1979	63	17,425	332,613	1,603	4.82	21,414	467,939	2,889	6.17	57,562	1,183,783	6,265	5.29
1978	68	18,216	343,125	1,366	3.98	19,113	404,748	2,562	6.33	55,284	1,110,669	5,819	5.24
1977	69	20,197	410,592	1,674	4.08	21,508	519,446	2,784	5.36	46,579	1,045,865	4,957	4.74
1976	70	20,300	412,135	1,544	3.75	22,748	585,609	3,528	6.02	52,431	1,151,801	5,646	4.90
1975	69	21,624	429,079	1,808	4.21	29,071	779,260	4,089	5.25	59,536	1,350,036	6,391	4.73
1974	73	20,370	383,542	1,656	4.32	20,147	469,804	3,151	6.71	61,496	1,370,603	6,577	4.80
1973	73	20,117	396,110	2,023	5.11	20,046	508,783	3,804	7.48	61,050	1,432,100	7,923	5.53
						REFINING							
1979	11	753	8,865	62	6.99	1,366	7,992	62	7.76	2,168	17,505	126	7.20
1978	16	723	7,803	74	9.48	1,281	7,250	84	11.59	2,035	15,658	160	10.22
1977	15	709	9,136	61	6.68	1,502	10,413	177	17.00	2,242	20,120	240	11.93
1976	17	740	8,478	49	5.78	1,218	9,649	120	12.44	2,028	18,840	173	9.18
1975	18	894	8,219	60	7.30	1,648	9,089	98	10.78	2,584	18,124	165	9.10
1974	20	916	8,486	80	9.43	1,546	9,552	131	13.71	2,508	18,815	217	11.53
1973	20	888	8,430	80	9.49	1,567	9,369	165	17.61	2,501	18,711	247	13.20
						MARKETING							
1979	20	4,818	101,741	355	3.49	7,307	210,850	1,610	7.64	16,143	444,957	2,634	5.92
1978	18	5,290	106,882	455	4.26	7,421	212,205	1,689	7.96	17,313	455,239	2,898	6.37
1977	18	6,800	177,698	730	4.11	7,788	315,396	1,829	5.80	14,710	498,726	2,576	5.17
1976	19	7,539	181,572	694	3.82	9,973	392,037	2,586	6.60	18,225	582,985	3,339	5.73
1975	22	8,850	191,865	818	4.26	15,636	572,338	3,054	5.34	24,775	774,202	3,898	5.03
1974	22	7,626	150,432	715	4.75	8,007	287,300	2,230	7.76	27,065	809,809	4,117	5.08
1973	23	8,161	174,231	974	5.59	7,515	316,860	2,736	8.63	27,431	866,968	5,179	5.97
						PRODUCTION							
1979	26	6,442	118,749	443	3.73	5,640	92,232	442	4.79	17,399	263,917	1,073	4.07
1978	29	5,923	108,931	348	3.19	3,956	61,278	258	4.21	16,236	219,369	779	3.55
1977	31	4,946	102,703	343	3.34	3,149	59,285	188	3.17	14,615	241,990	767	3.17
1976	32	4,970	101,887	323	3.17	3,532	59,990	225	3.75	14,049	244,931	759	3.10
1975	35	4,825	97,967	331	3.38	3,744	59,414	252	4.24	14,583	243,096	793	3.26
1974	34	4,862	97,634	304	3.11	3,786	59,954	188	3.14	12,411	202,361	607	3.00
1973	34	4,859	98,725	386	3.91	3,790	58,013	215	3.71	11,846	200,342	724	3.61
						PIPELINE							
1979	37	2,975	58,104	175	3.01	5,162	104,624	372	3.56	12,877	252,002	856	3.40
1978	38	3,943	80,502	287	3.57	5,001	99,229	417	4.20	12,754	249,515	1,000	4.01
1977	39	3,717	71,168	244	3.43	4,551	99,278	369	3.72	9,534	179,031	750	4.19
1976	38	4,062	76,751	243	3.17	4,382	92,676	360	3.88	10,523	208,716	772	3.70
1975	40	4,243	77,207	305	3.95	4,624	91,005	356	3.91	10,982	207,597	889	4.28
1974	41	4,336	81,110	313	3.86	4,381	82,788	302	3.65	12,459	237,927	902	3.79
1973	41	3,822	77,874	354	4.55	4,706	81,354	468	5.75	12,500	241,724	1,141	4.72
						MISCELLANEOUS							
1979	16	1,902	32,505	250	7.69	1,558	31,257	174	5.57	3,705	67,164	441	6.57
1978	21	2,283	38,448	198	5.15	1,419	24,272	110	4.53	3,982	70,579	329	4.66
1977	23	3,968	49,263	289	5.87	4,482	34,558	221	6.40	8,819	90,013	525	5.83
1976	23	2,040	42,829	231	5.39	2,509	30,768	237	7.70	4,946	80,993	504	6.22
1975	25	2,405	47,915	244	5.09	2,731	38,664	271	7.01	5,517	92,361	538	5.82
1974	24	2,566	45,276	241	5.32	2,394	29,603	298	10.07	5,332	79,203	565	7.13
1973	22	2,340	36,246	227	6.26	2,441	42,574	218	5.12	5,038	82,362	464	5.63

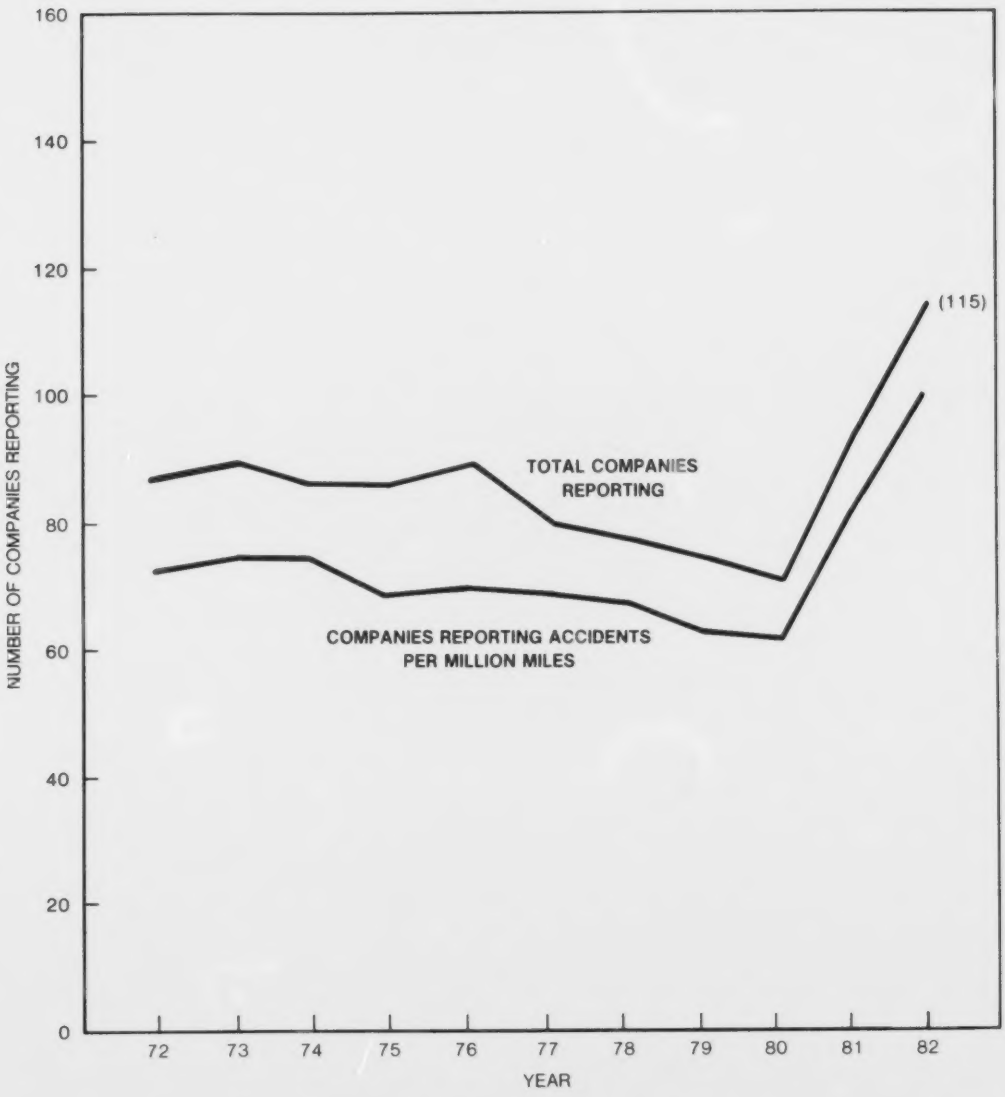
*Not comparable to 1980–1981.

TABLE II—PETROLEUM INDUSTRY—MOTOR VEHICLE ACCIDENTS PER 100 VEHICLES

COMPARISON BY DEPARTMENTS 1973–1979* (INCLUSIVE) OF THOSE COMPANIES REPORTING THE ITEMS SHOWN

		PASSENGER CARS REPORTED SEPARATELY			TRUCKS REPORTED SEPARATELY			COMBINATION ALL CARS AND TRUCKS REPORTED		
Year	No. of Cos.	No. of Cars	No. of Accidents	No. of Accidents Per 100 Vehicles	No. of Trucks	No. of Accidents	No. of Accidents Per 100 Vehicles	No. of Cars and Trucks	No. of Accidents	No. of Accidents Per 100 Vehicles
					ALL DEPARTMENTS					
1979	77	19,598	1,852	9.4	23,962	3,191	13.3	62,283	6,816	10.9
1978	79	20,544	1,749	8.5	21,789	3,014	13.8	60,228	6,654	11.0
1977	81	22,410	2,037	9.1	24,115	3,228	13.4	51,399	5,764	11.2
1976	89	22,645	1,875	8.3	25,395	3,897	15.3	57,423	6,346	11.1
1975	87	24,108	2,166	9.0	31,957	4,533	14.2	64,906	7,193	11.1
1974	87	22,800	1,990	8.7	23,024	3,554	15.4	66,803	7,314	10.9
1973	88	23,322	2,479	10.6	24,146	4,355	18.0	68,355	8,930	13.1
					REFINING					
1979	19	928	82	8.8	1,790	76	4.2	2,767	160	5.8
1978	29	963	104	10.8	1,688	96	5.7	2,682	202	7.5
1977	20	859	79	9.2	1,792	193	10.8	2,682	274	10.2
1976	23	885	58	6.6	1,407	128	9.1	2,362	190	8.0
1975	24	1,040	68	6.5	1,858	99	5.3	2,940	174	5.9
1974	26	1,087	99	9.1	1,747	132	7.6	2,880	237	8.2
1973	26	1,004	92	9.2	1,758	167	9.5	2,808	261	9.3
					MARKETING					
1979	29	5,503	405	8.3	7,640	1,677	22.0	17,161	2,801	16.3
1978	28	6,404	662	10.3	8,371	1,992	23.8	19,377	3,408	17.6
1977	24	7,973	963	12.1	8,816	2,119	24.0	16,911	3,099	18.3
1976	25	8,726	909	10.4	11,022	2,838	25.7	20,012	3,806	19.0
1975	28	10,100	1,043	10.3	16,729	3,342	20.0	27,118	4,411	16.3
1974	28	8,842	925	10.5	9,171	2,529	27.6	29,445	4,626	15.7
1973	30	10,075	1,244	12.3	9,087	3,193	35.1	30,917	5,906	19.1
					PRODUCTION					
1979	36	6,952	482	6.9	6,090	474	7.8	18,359	1,144	6.2
1978	44	6,268	394	6.3	4,265	279	6.5	16,890	846	5.0
1977	39	5,310	386	7.3	3,515	218	6.2	15,345	840	5.5
1976	39	5,344	352	6.6	3,908	244	6.2	14,799	807	5.5
1975	45	5,233	368	7.0	4,207	285	6.8	15,454	863	5.6
1974	44	5,269	328	6.2	4,213	203	4.8	13,245	646	4.9
1973	44	5,246	427	8.1	4,220	232	5.5	12,663	782	6.2
					PIPELINE					
1979	46	3,450	223	6.5	5,598	401	7.2	13,788	933	6.8
1978	54	4,216	333	7.9	5,286	447	8.5	13,312	1,076	8.1
1977	48	3,937	267	6.8	4,747	393	8.3	9,950	797	8.0
1976	47	4,301	280	6.5	4,682	382	8.2	11,062	831	7.5
1975	51	4,497	342	7.6	4,938	398	8.1	11,550	968	8.4
1974	50	4,601	342	7.4	4,715	324	6.9	13,058	953	7.3
1973	50	4,144	428	10.3	5,046	489	9.7	13,162	1,236	9.4
					MISCELLANEOUS					
1979	27	2,230	292	13.1	2,463	334	13.6	4,938	643	13.0
1978	35	2,639	252	9.5	2,144	196	9.1	5,063	469	9.3
1977	31	4,274	335	7.8	5,209	305	5.9	9,852	655	6.6
1976	32	2,440	272	11.1	3,242	305	9.4	6,079	613	10.1
1975	32	2,831	295	10.4	3,537	351	9.9	6,749	669	9.9
1974	32	2,937	293	10.0	3,145	364	11.6	6,454	683	10.6
1973	33	2,806	286	10.2	4,008	272	6.8	7,071	577	8.2

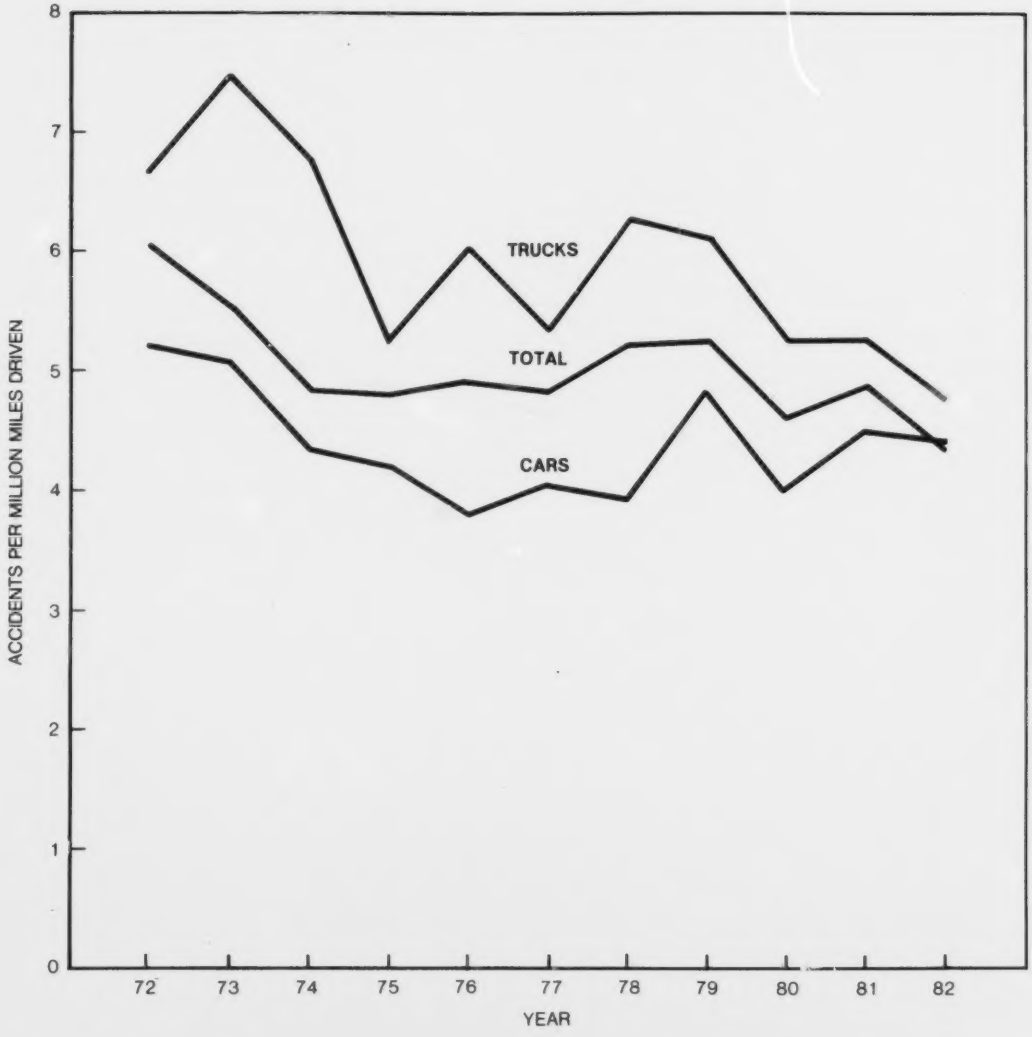
*Not comparable to 1980–1981.



Company Participation in API Motor Vehicle Accident Data Collection

NOTES: All companies reported data for accidents per 100 vehicles; most but not all companies also reported per million miles driven.

To facilitate comparisons, the scale for this curve is the same as that used for the participation curves in the other three fire and safety reports.

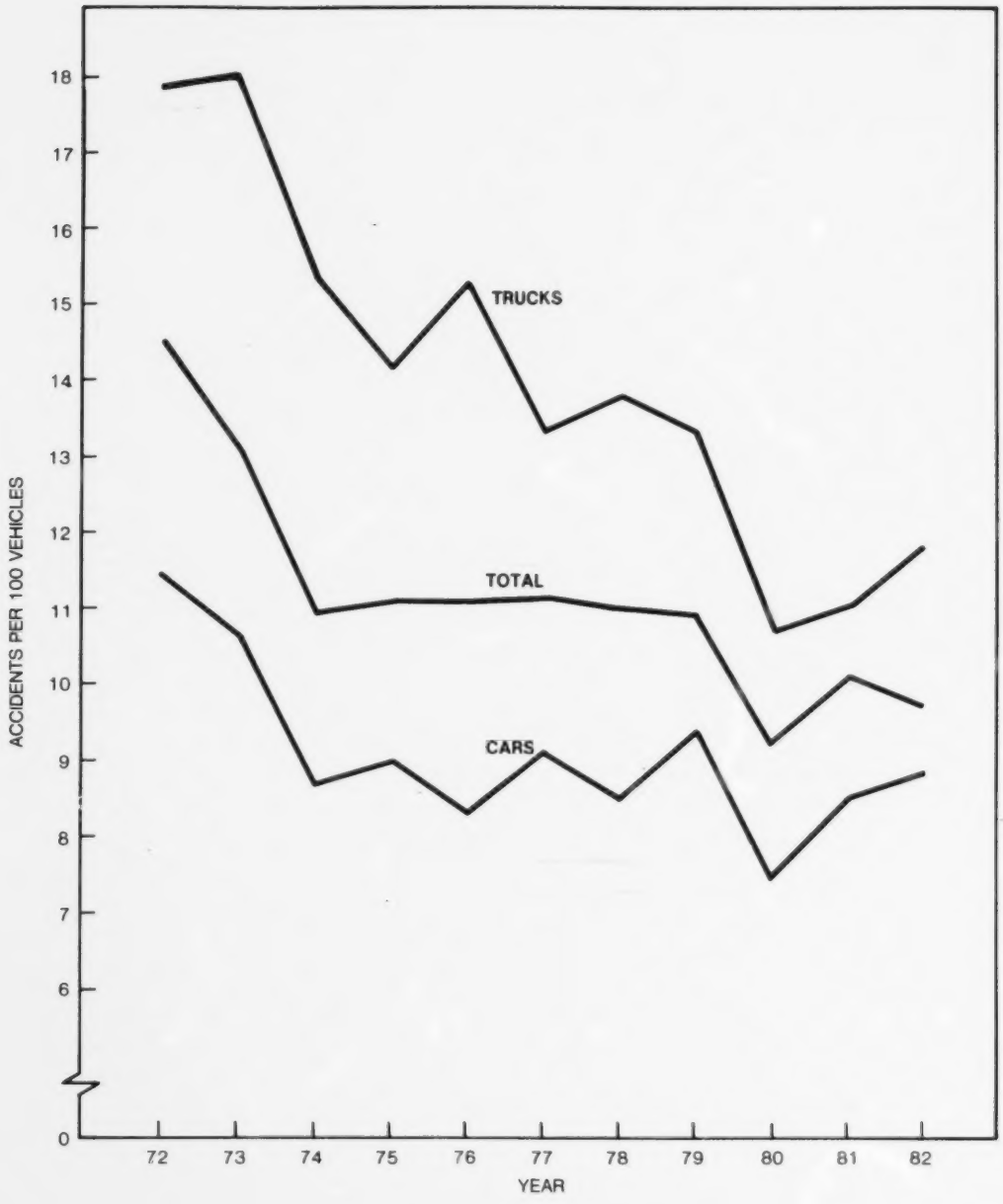


Vehicle Accidents per Million Miles Driven

NOTES: The accident rates for trucks have become almost as low as those for cars. Both rates decreased over the decade.

The curves cross in 1982 because the companies which reported only combined totals had a lower accident rate than those which reported cars and trucks separately.

"Trucks" include bulk cargo trucks and service trucks (such as pickups).



Vehicle Accidents per 100 Vehicles

NOTES: The average number of accidents per vehicle dropped sharply over the last decade. There is now less than one accident for every 10 vehicles.

For 1982 the "total" curve is sloped downward while the other two are sloped upward because the companies which reported only combined totals had a lower accident rate than those which reported cars and trucks separately.

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